

# States and firms on the periphery: the challenges of a globalising world

Citation for published version (APA):

Benito, G. R. G., & Narula, R. (2007). *States and firms on the periphery: the challenges of a globalising world*. UNU-MERIT, Maastricht Economic and Social Research and Training Centre on Innovation and Technology. UNU-MERIT Working Papers No. 004

## Document status and date:

Published: 01/01/2007

## Document Version:

Publisher's PDF, also known as Version of record

## Please check the document version of this publication:

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
- The final author version and the galley proof are versions of the publication after peer review.
- The final published version features the final layout of the paper including the volume, issue and page numbers.

[Link to publication](#)

## General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal.

If the publication is distributed under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license above, please follow below link for the End User Agreement:

[www.umlib.nl/taverne-license](http://www.umlib.nl/taverne-license)

## Take down policy

If you believe that this document breaches copyright please contact us at:

[repository@maastrichtuniversity.nl](mailto:repository@maastrichtuniversity.nl)

providing details and we will investigate your claim.



**UNITED NATIONS  
UNIVERSITY**

**UNU-MERIT**

## **Working Paper Series**

**#2007-04**

### **States and Firms on the Periphery: The Challenges of a Globalising World**

**Gabriel R.G. Benito & Rajneesh Narula**



# **States and Firms on the Periphery: The Challenges of a Globalising World**

**Gabriel R.G. Benito<sup>1</sup>**

**&**

**Rajneesh Narula<sup>2</sup>**

To appear in Benito, G.R.G. and Narula, R. (2007), Editors, *Multinationals on the Periphery*. London: Palgrave.

## ***Abstract:***

A key feature of globalisation has been the growth and spread of multinational enterprises (MNEs), but there is here is considerable evidence that MNEs do not regard all locations as being equivalent. MNE activity both to and from peripheral economies differs from MNE activity associated with core economies. We discuss how and why multinational enterprises may differ in their investment behaviour from and to peripheral economies, from the point of view of both states and firms. We also provide an overview of the policy issues associated with the peripheral nature of these economies *per se*, as well of the policy issues associated with MNEs that invest into and from peripheral economies. *Inter alia*, we argue that market forces cannot fully substitute for the role of governments in developing and promoting a proactive industrial policy.

**UNU-MERIT Working Papers**  
**ISSN 1871-9872**

Maastricht Economic and social Research and training centre on Innovation and Technology,  
UNU-MERIT

***UNU-MERIT Working Papers intend to disseminate preliminary results of the research carried out at the institute to stimulate discussion on the issues raised.***

---

<sup>1</sup> BI Norwegian School of Management, N-0442 Oslo, Norway

<sup>2</sup> University of Reading Business School Whiteknights, Reading RG6 6AA, UK



## **1. Introduction**

One of the primary features of globalisation has been the growth and spread of multinational enterprises (MNEs), and their increasing significance in the economies of almost all countries, whether large or small, developing or industrialized. MNEs have sought to spatially distribute their value-adding activities globally to not only take advantage of market opportunities but also to exploit different specialised resources and capabilities that are unique to particular locations. In other words, in response to increasing cross-border competition and rivalry, firms have increasingly sought to organise their activities internationally to achieve greater efficiency in their value-adding activities, and thereby optimising their market share and rent generation.

However, there is considerable evidence that MNEs do not regard all locations as being equivalent. Smaller economies, less-developed countries and countries which are spatially or economically on the ‘periphery’ are not as attractive as destinations for inward FDI because of their limited market size, or other under-developed location advantages. As such, the kinds of subsidiaries and the nature of the MNEs’ value-adding activities located in more peripheral regions and countries are also different, and tend to be considerably less integrated into their global operations. MNEs that originate from peripheral economies also behave differently from those emanating from core countries when internationalising their operations.

Not all these differences are associated specifically with the peculiarities of their peripheral location. Indeed, it can be argued that some of the differences in the nature, motivation, and pace of inward and outward FDI derive primarily from being at an earlier stage of economic development. However, the ‘costs of being peripheral’ accrue also to

countries which are not necessarily developing. A number of smaller developed countries tend to be host to different kinds of MNE affiliates, and MNEs from these countries internationalise in decidedly different ways compared to more core countries. There is a stream of research that argues that these differences are due to the resource constraints associated with small country size (see e.g., the contributions to Van Den Bulcke and Verbeke, 2001). Nonetheless, Benito et al. (2002) have shown that even countries of similar size, geographic location and economic development still exhibit different extents of engagement in international business. As we shall highlight in this chapter, the primary differentiating factor between the core and periphery is interdependence, and this is determined by the extent of social, political and economic integration, and the extent to which there is reciprocity.

This book also seeks to develop this theme, focusing on how MNE activity both to and from peripheral economies differs from MNE activity associated with core economies. Much of the literature on international management and business focuses on MNEs to and from core economies, or examines the differences as being primarily associated with country size. Another literature (associated with development economics) argues that economic development is the primary determinant. We argue that these two arguments are closely associated, because these locations are similarly handicapped. Countries such as Trinidad or South Africa – at least with regards MNE activity – share characteristics in common with Norway and Estonia.

## **2. What is ‘Peripheral’?**

The concept of a periphery has been with us a long time, and by its very definition, implies that it is relative to the existence of a ‘core’. Researchers in the area of ‘world systems theory’ have argued that the core-periphery dichotomy (in its current sense) amongst nations has been with us since at least the 16th century when the foundations of the modern capitalist system and international trade led to the beginning of the process of globalisation and the increasing interdependence between nations through trade (see the various works of Wallerstein, e.g., 1974, 1979). This body of work is closely linked to dependency theory (see e.g., Prebisch, 1962), which building on the core-periphery argument addresses the challenges for development and catch-up for the countries in the periphery – who are, by definition, economically or otherwise poorer or less technologically advanced than countries of the core. These theories focus on political, sociological and economic challenges that derive from the domination by the core, of the periphery.

Defining the periphery is a task fraught with difficulty, because membership of the core (and of the periphery) changes over time. For the purposes of this contribution, we refer to countries that are peripheral (or core) in the sense of economic globalisation. We regard globalisation as an ongoing process, rather than an event, which has influenced different economic actors to varying extents. Globalisation as used here implies the growing interdependence of locations and economic units across countries and regions (Narula 2003). The key word here is interdependence. Cross-border linkages between economic entities do not imply globalisation, merely internationalisation. Integration and interdependence is about reciprocity, and the extent of this reciprocity.



The concept of interdependence and reciprocity are crucial to understanding globalisation, and by extension, the nature of the core-periphery dichotomy. ‘Simpler’ cross-border activity such as trade does not necessarily result in interdependence. It is the growth of FDI, and the multinational corporation in the modern, complex cross-border hierarchical organizational form that plays a pivotal role in fostering economic interdependence. For while international business activity was broad based through trade, it was dominated by the development of vertical linkages, with a flow of goods between locations, in response to varying elasticities of supply and demand. Raw materials were transported from one location to another, manufactured, and transported to a third location for sale. Factors of production were immobile, and although capital did in fact get relocated, these were capital flows rather than capital embodied in physical assets or personnel, and (with a few notable exceptions) there were no significant integration of operations in disparate locations within the control and management of the same individuals until after WWII. Firms were international, but not multinational. International business and economic activity was *extensive* in the sense that the value of goods and capital exchanged were considerable, and involved numerous countries and actors, who were all dependent upon each other’s patronage. But it was not *intensive*, in that activities were largely not integrated across borders, with the possible exception of the large trading companies and other state-sanctioned *de facto* monopolies (Held et al., 1999).

As with all dichotomies such as the north-south, west-east, rich-poor, etc, there are numerous shades of grey between the two extremes, and in general require gross simplifications of a continuum of intermediate levels. This is all the more the case with

the core-periphery dichotomy, since countries have been integrated into the world economy to different extents, and this is continuously in flux, since it is a process. Hence, as indicated in Figure 1.1, it is more appropriated to treat core-periphery as a continuum. For instance, the last three decades have seen China, and some East Asian economies (such as Taiwan, Korea, Singapore, Malaysia) move closer to the core than the periphery, than say, Laos, Vietnam, or Bangladesh. Much of Africa is firmly within the periphery (and one may even go so far as to say sub-Saharan Africa can be defined as being ‘on the periphery of the periphery’), although South Africa has moved towards the core. It is not about size, the lack of natural resources or markets. The Netherlands and Belgium are small in these terms, but are firmly in the core, whereas Norway, Finland and New Zealand are in the periphery, but are at varying distances from the core, in the sense that they are less integrated into the world economy. It is not simply about the level of industrial or economic development: much of the former Soviet Union (with the possible exception of Russia), while industrially developed and of relatively high GDP levels are firmly within the periphery, rather than the core.

\*\*\*INSERT FIGURE 1.1 ABOUT HERE\*\*\*

It is worth noting that while distance has historically been an important determining factor of peripheral-ness, technological improvements in transportation and communication technologies have played a significant role in making geographic distances less significant, although the costs of transportation of physical goods and people remains non-trivial.

*A peripheral economy can be said to be one which plays an insignificant role as either host or home to MNEs; engages in relatively little trade in intermediate and manufactured goods; contributes relatively little to innovation and scientific progress; is weakly linked or accessible physically to the core, because of poor infrastructure, transport and communication links; does not play a significant role in decision making within supranational organisations; and does not share a significant number of formal institutions with the core countries.* Globalisation implies economic, political and social integration, in the sense that there is an ongoing relationship that involves reciprocity, and creates a longer-term ongoing interdependence between economic actors. Countries with limited participation in this global milieu, and for whom reciprocity is ‘unequal’, are *de facto* weakly integrated and hence peripheral to the world economy.

### **3. Why is it Important to Understand the Periphery?**

There are those who wish to understand why the world evolves into a core-periphery formation, taking a more positive (rather than normative) approach. Again, the history of economics is littered with such studies, and these go all the way back to include Adam Smith, Frederick List, David Ricardo, among others. What makes a particular area, region or state into a core location rather than a peripheral one, and vice versa? Indeed, this may be argued as being the primary objective of much of the social sciences.

The core-periphery concept within the field of economics has – for a rather long time – been the remit of economic geography, building very much upon the insights of Alfred Marshall (1919), and much-divorced from the mainstream literature until Paul Krugman ‘re-invented’ what is known as the ‘new economic geography’ in his influential

1991 book. This has spurred a new literature which has embraced the core-periphery argument at its centre to answer the question, ‘what might economic integration across countries and regions mean for the spatial organization of economic activity? Does it increase concentration of economic activity in the core at the expense of the periphery, or does it eventually lead to greater dispersion?’ (see e.g., Krugman, 1991; Krugman and Venables, 1995; Forslid and Wooton, 2003; Fujita and Thisse 2003). This discussion has been couched within the discussion of how globalisation affects economic disparities between regions and nations. Indeed, there is now a large literature that asks whether globalisation will increase or decrease the polarisation and inequalities between rich and poor.

The important finding in this body of work is this: when there are declining costs of transportation and communication, as is associated with globalisation, the resultant increased international commerce leads economic activity to re-organise itself between the trading regions along a core-periphery structure, to the detriment of economic activity in the periphery. That is, there will be a ‘hollowing out’ in the periphery, and an agglomeration of activity in the core, because firms will concentrate production where demand is greater, and where economies of scale can be gained. There are important nuances in the various models proposed, and differences in opinion as to whether the core-periphery model holds as costs decline further with a deepening of globalisation. Does the periphery become more peripheral over time, or is there a point at which patterns of concentration reverse such that the periphery converges with the core?

Most of these studies acknowledge the pivotal role of the MNE in shifting production (and therefore employment) from one location to another in response to

changing prices, availability of factors of production, and the presence of markets. However, the way in which production shifts from core to the periphery, the structure of global production of MNEs, and the differences between firms from the core and the periphery has been a matter which has mainly been addressed by the international business literature.

A number of the early research in international business contrasted the internationalisation behaviour of MNEs from the core and the periphery, and how the redistribution of production and innovation between the core and the periphery takes place. Vernon's product life cycle model (1966) examines this process, based on a single core country (the US), and how, over the life of a given product, production would gradually be transferred to increasingly peripheral locations, either by the innovating core country firms, or by firms based in peripheral economies<sup>1</sup>.

#### **4. Outward FDI from the Periphery**

Vernon's work – as with much of the earlier research on internationalisation of firms and the location of production – pays scant attention to the differences in the nature of MNEs of differing home countries. Affiliates of MNEs from the core would function abroad as 'miniature replicas' of their home country operations, truncated in response to firm specific characteristics and the host country characteristics. Likewise, it was assumed that firms from the periphery – as they moved economically towards the level of the core – would operate in a similar manner, both at home, and abroad.

This idea was challenged in response to the growing phenomenon of MNEs from the developing countries (see e.g., Lecraw, 1977; Kumar and McLeod, 1981; Lall, 1983).

As UNCTAD's World Investment Report 2006 attests to, this literature has burgeoned quite considerably, and has evolved a lot since the early work in this area. These concepts can be broadly applied beyond developing country MNEs to outward FDI from the periphery in general. The evidence on MNEs from the periphery has shown an evolution over time, and two different types of MNEs from the periphery, best described as being of two 'waves'. Although this two-wave approach was developed explicitly with developing country MNEs in mind, the second wave in particular is associated with the characteristics of the MNEs, and their motivations apply equally to all peripheral home countries, whether developing or industrialised.

The first wave sketched a description of a 'different' kind of MNE that – so it was argued – differed considerably from that of 'conventional' industrialised country MNEs, in terms of its ownership (O) advantages, motivation, geographical direction and mode of overseas activity. One of the features of developing country MNE activity as charted in the first wave literature was the direction and motivation of FDI, compared with 'conventional' MNEs (see e.g., Lall 1983). Much of the empirical work indicated a strong and marked trend for MNE from the periphery to focus their investments in neighbouring and other countries at a similar or an earlier stage of development. This preference was a direct result of their lack of international experience – these locations had offered resource endowments for markets that were broadly similar to those of their home countries. Furthermore, their O advantages were of a type most suited to these location (L) advantages (and often induced by them), and were based on technologies at the end of their product life cycles. In other words, these MNEs had few transaction-type ownership (Ot) advantages, and only the most basic form of asset-type O advantages (Oa)

– those that derive from the efficient acquisition and adaptation of imported technologies. These O advantages were enhanced by the prevalence of import-substituting, inward looking policy regimes amongst most developing countries which encouraged small scale production, typical of that suited to these MNEs. The O advantages of these firms were primarily country-specific, determined by the market distortions introduced by the home country policies, and only sustainable where similar L advantages existed in other countries. While some asset-seeking investment in industrialised countries was undertaken, it was relatively minor with many large investments representing flight capital or ‘round-trip investments’, as entrepreneurs utilised overseas subsidiaries to circumvent home country restrictions on outbound international capital movements. In particular cases, a large proportion of what is statistically recorded as outward FDI flows represented investments by the affiliates of ‘conventional’ MNEs.

The growth of the ‘second wave’ of periphery MNEs can be traced to the late 1980s, and has also – of recent – been expanded to include the growth of outward FDI from the former centrally planned economies of Central and Eastern Europe. The second wave MNEs from the periphery tend to come from countries at a higher stage of industrial development, or have evolved structurally towards industrial sectors that are capital and knowledge intensive. These firms engage in outward FDI to less developed countries as a means of moving their natural-asset intensive activities to locations with appropriate comparative advantages, while, at the same time, they are engaging in both market and strategic asset-seeking FDI towards the core countries. In other words, they are increasingly becoming global, demonstrating features of ‘conventional’ MNEs from the core.

The evolution of the ‘second wave’ MNEs from the periphery has been further enhanced by the fundamental (but gradual) change in the structure of the world economy, much of which is often generalised as being a direct result of globalisation. These changes can be considered from the peripheral country perspective as being of two kinds. First, there are those that have been largely exogenous to these countries but which have affected their economic structure both as members of the world economic order and as individual economies. Whereas most core countries have been experiencing economic, technological and structural convergence, the majority of the peripheral countries, rather than converge with the lead countries, have tended to diverge. This simultaneous process of convergence and divergence has impacted on firms by creating broader and more competitive markets across countries due to similar consumption and production patterns. This has had two effects on the converging countries: (i) firms in each country are presented with larger markets, and this has led to developing global technologies that have large economies of scale and high minimum efficient scale. Firms in these industrial sectors need international markets to justify production (see Chapter 4 in this volume); and (ii) technologies have also converged, such that firms in certain sectors are now competing not just with other firms in the same country, but other firms in the same country but not necessarily in the same industry. In other words, firms need to have competitive advantages that are globally viable, rather than domestically or regionally so, and this has been further enhanced by the innovation of space-shrinking technologies (Narula and Dunning, 2000). Although the development of *de facto* and *de jure* economic blocs such as EU and NAFTA has primarily acted to enhance the positive effects of these



developments for their members, they also represent barriers to entry to non-members and to developing countries in particular.

Second, there have been structural changes within individual countries often in direct response to these changes, and as such may be considered as endogenous to most peripheral economies. These endogenous changes are primarily associated with the actions and policies of governments. One of the most important of these changes over the past decade or so has been a fundamental shift in the policy orientation of developing countries from an import-substituting role (or a centrally-planned one) to an export-oriented, outward looking one. The extent of liberalisation varies between countries: in some cases it is associated with a more pro-active and market facilitating role, while in others it is simply reactive or even laissez-faire. Nonetheless, despite this broad spectrum of policy options, it is safe to generalise that the extent of government intervention embraces a much wider spectrum than was the case prior to 1990, and this variation is equally diverse regarding policy orientations towards MNE activity.

#### Multinationals from the Periphery

Certainly, the evidence on MNEs from the periphery would indicate that both waves of outward FDI from the periphery now occur simultaneously, from the same countries, regardless of their stage of economic development. The first wave MNEs are focused towards resource-intensive activity (whether extractive, or labour-intensive), while for the second wave MNEs their primary markets are in the core countries, and this is evidenced by the growth of FDI and there is increasing evidence that they wish to rapidly consolidate their presence in these locations. Growing competition means that these

nascent MNEs do not have the privilege of slow and gradual overseas expansion any longer. A number of these MNEs have expanded through mergers and acquisitions, although this phenomenon is much smaller in relative terms than many observers have made out (Barnard, 2006). In other cases, they are ‘born global’, although the extent to which this is done may have less to do with their origin in a peripheral location than the industry-specific characteristics (see Chapter 5 in this volume). Whatever their reasons for doing so, a majority of these MNEs seek to present themselves not as MNEs from South Africa, India or China, but they adopt the *modus operandi* of ‘conventional’ MNEs from the core countries (Barnard, 2006; Mathews, 2006). Indeed, several of them relocate their headquarters to the US or the EU, and/or list themselves on stock markets there.

Most peripheral economies have – as a means to overcome the inherent disadvantages and structural market imperfections associated with their home locations – nurtured state-owned enterprises and national champions as part of their economic and industrial policies. They have also often provided protection against competition, and subsidised their outward expansion. Although various agreements within the WTO (combined with economic liberalisation) have led to the dissolution – or at least a weakening of such state support – this has helped strengthen their O advantages, and provided these firms with the initial impetus to internationalise. However, as rents from protected home markets have dried up as a result of increased competition and privatisation in a post-liberalisation scenario, a number of such firms have experienced considerable restructuring of their foreign operations, sometimes withdrawing completely by selling off their foreign assets (Benito, 2005). Others have responded to the challenge by expanding abroad rapidly in a more aggressive way, and acting out on commercial

opportunities without fear punitive action on the part of their home country governments. These issues are discussed in greater detail in the policy section of this chapter.

## **5. Inward FDI to Peripheral Economies**

The liberalisation of markets and the increasing cross-border interdependence between economies as a result of globalisation has also led to a restructuring of inward FDI to these countries. The traditional picture of FDI flows has been that of capital, technology and competence moving between core countries of the Triad or to more peripheral ones within the Triad, with those outside the Triad largely being left out of the equation altogether (Dicken, 2003). In 2004, three-quarters of total stock of FDI in the world remained concentrated in Europe and North America (UNCTAD, 2005). Even though there are several cases of small peripheral countries that have been highly successful in attracting FDI – Ireland probably being the prime example in recent times (the value of the stock of inward foreign direct investment amounted to 126% of Ireland's GDP in 2004, see UNCTAD, 2005) – there is a tendency for FDI to agglomerate in large countries, such as The United States, Germany, the UK and, increasingly, China. The United States has over time actually strengthened its current position as the largest recipient of FDI, closely followed by the EU, which experienced substantial inflows as a result of further economic integration throughout the last two decades. Another example of how economic integration may promote inward FDI is Mexico, which has become an increasingly important host for the operations of MNEs – partly as a result of the establishment of NAFTA.

The picture has been particularly striking in the case of horizontal FDI, which to a considerable extent is of a market-seeking nature. The large markets of the core Triad economies have consequently been the main sources of FDI and well as the main recipients of such investments. Despite the high purchasing power of individual consumers, the reduction of trade costs as a result of trade liberalization should generally have made the smaller and more peripheral Triad countries less attractive as destinations for horizontal FDI: it has become easier and cheaper to serve these markets through exports.

Vertical FDI, which is motivated by access to inputs and improving competitiveness through more efficient production, has historically been less prone to be concentrated among the large core countries: for example, before WWII two-thirds of the world's FDI was located in developing countries (Dicken, 2003), and a majority of that FDI was of a vertical kind. However, in relative terms developing countries became evermore marginalised as host countries in the decades following the WWII. Less than a third of the world's FDI stock in 2000 was located in developing countries. For small, peripheral, but rich and developed countries, such as those in the Nordic region, in Oceania, and in Western and Southern Europe there has been a continuous flow of vertical FDI. Nevertheless, developments have been uneven. For example, whereas MNEs industries such as shoes, textiles and apparel, and various consumer goods were attracted by low labour costs in Southern Europe in the 1960-1980 period, the cost advantage of that part of Europe was gradually lost in subsequent decades and much of the manufacturing capacity hence migrated to Asia. Only selected parts of production – those in which manufacturers were able to significantly upgrade local skills and

competence – remain in the area. Other regions, such as the Nordic countries, also lost much of their traditional industrial manufacturing base (some of which was foreign-owned), but in many industries their relative cost-position did not deteriorate as much (see Chapter 9 in this volume); partly due to investments in technology and organisation that has brought about significant productivity gains, and partly due to further specialisation into areas where their cost position is less threatened. The general high-cost position of the Nordic countries has been balanced by the development of good physical, social and educational infrastructures, and a well-educated workforce. Highly skilled human resources, such as engineers and scientists, have actually been relatively modestly paid. Some peripheral countries – and Ireland is a prime example – have been successful with pursuing deliberate policy efforts aimed at promoting inward FDI. Credible long-term policies that included favourable tax schemes and considerable infrastructural investment, combined with their position as a gateway to the EU, lead to the creation of the Celtic Tiger (Navaretti and Venables, 2004). Finally, vertical inward FDI has in many instances been motivated by countries' endowments of natural resources, such as energy and mineral, as testified by the presence of many MNEs in Latin America, in South Africa, and in Oceania.

#### MNE affiliates in the periphery

Acknowledging that FDI is not simply a commodity, but that what foreign-owned subsidiaries actually do in a country matters, there is now a rich literature on various aspects of subsidiary roles and development (see e.g., Benito et al., 2003; Birkinshaw and Hood, 1998; Holm and Pedersen, 2000). It is useful to look at the combination of activity

scope and competence levels when discussing subsidiary roles. Figure 1.2 illustrates the different subsidiary roles that unfold from the various combinations of scope and competence levels.

\*\*\*INSERT FIGURE 1.2 ABOUT HERE\*\*\*

Because internationalization is inherently risky, initial investments tend to be small, perhaps in a sales subsidiary or a small-scale production unit. Subsequent development may, if it occurs, proceed along either one or both dimensions. As shown in Figure 1.2, subsidiaries with many activities but low competence levels are defined as ‘miniature replicas’ that basically mirror the parent organization. These subsidiaries are typically found in areas that are strategic for locating the entire value chain to achieve economies of scale and scope. Subsidiaries with few activities but high levels of competence, on the other hand, are highly specialised units that add value through their knowledge and competence to the rest of the MNE. Such subsidiaries are often related to R&D activities. There will, without doubt, always be several different combinations creating a variety of roles, as illustrated by multi-activity units. That defines a ‘mid-ground’ of subsidiary roles where probably the majority of subsidiaries can be placed. Finally, ‘strategic centres’ represent subsidiaries with a wide scope of activities as well as high competence levels.

We expect that it is generally more beneficial – from the viewpoint of subsidiary development – to be located in the core than outside it. Units in the larger markets are, *ceteris paribus*, in a better position than those in the periphery to exploit economies of

scale as well as economies of scope. Because liberalisation of trade and factor movements often results in an intensification of competition, there will usually be a shakeout of less-efficient actors (see Chapters 2 and 8 in this volume). Those that remain in an industry are hence likely to be the most competitive ones. Of course, competitive processes are never at a standstill and units must – regardless of their location – strive to better their performance, efficiency or innovativeness. Units in peripheral locations may clearly also develop high levels of competence, especially if they are part of strong local industrial clusters or if they enjoy favourable access to unique resources of various kinds: special circumstances may make particular locations well suited for certain activities. However, whenever operations are predominantly oriented towards the local market, factors like weaker competition, smaller markets, and more peripheral positions in the corporate network of the parent MNE, work against subsidiaries developing more advanced roles (see Chapter 8 in this volume). Subsidiaries in peripheral locations with the characteristics of, say, ‘strategic centres’ are hence more likely to be the ‘special case’ rather than the ‘general case’.

Countries on the periphery suffer from their smaller markets and distance to the core. Historically, they have tended to overcome such disadvantages by instituting industrial policies that promote import-substituting type of investments by MNEs. As a result, they have tended to host subsidiaries that are ‘miniature replicas’. The MNEs have been able and willing to offset the disadvantages associated with small market size and inefficient scale economies *inter alia* by obtaining opportunities associated with privileged access to restricted markets.

A deep regional integration scheme, of which the EU is a prime example, may considerably affect the location advantages associated with peripheral countries. Upon membership of deep integration schemes, ‘insider’ peripheral countries experience a decline of their location advantages associated with such privileges, since the state must re-orient their economies to the supra-regional norms established by the core, which is assumed to be offset by an industrial redistribution within the region based on comparative advantage, and potential access to a larger unified market. ‘Outsider’ countries, on the other hand, experience a decline in their location advantages, not because of industrial redistribution, but by virtue of being marginalized relative to neighbouring ‘insider’ countries. However, Tavares (Chapter 6 in this volume) shows that the development trajectories of ‘insider’ countries – that would seem as relatively similar countries at the outset – may well differ.

## **6. Policy Issues**

There are a number of policy issues which arise, which can be classified as being: (1) policy issues associated with the peripheral nature of these economies *per se*, and (2) policy issues associated with the MNEs that invest into and from peripheral economies. These are intricately related, and we discuss two different areas of interest: those associated with domestic national policies, and those associated with supra-national policies.



### Domestic policy issues

Peripheral economies tend to be limited in their industrial policy space because of the inherent limitations of their economy. As discussed earlier, their economies tend to have competitive advantages in just a few sectors, and these tend to be sectors which take advantage of their natural assets. We argue here that peripheral economies – which tend to be both supply and demand constrained – are increasingly seeking to overcome these limitations by aggressively creating interdependencies with the core through rapid internationalisation. This process has been considerably accentuated as countries have come to accept the new realities of economic liberalisation that have necessitated an outward-looking, pro-FDI, political and economic policy orientation. The end to protectionism and state support that went well with the inward-looking import substituting stance, coupled with the resultant rapid inflow of FDI from the core economies has forced domestic economic actors (both firms and states) to respond by looking to aggressively internationalise (Chapter 3 in this volume discusses in some detail the interaction between inward FDI and the internationalisation of Estonian firms).

From a demand perspective, the relatively limited domestic market size meant – in the days of inward looking policies – that if such MNEs were to achieve economies of scale in production, they sought additional markets to that of their home location in order to increase their *de facto* market size<sup>2</sup> (Bellak and Cantwell, 1997). This has not changed, except that the imperative is now greater with increased international competition. From a supply perspective, the smallness of their economies means that they have limited resources, in terms of capital (both financial and human) as well as in terms of natural and created assets, such that firms from these countries tend to be specialised in a few

sectors. The industrial structure of peripheral economies tends to demonstrate a 'niche' character, with a high level of specialisation in few areas, where firms act as specialist suppliers, and thereby show a low level of product diversification. Bellak and Cantwell (1997) posit that it is in such sectors that they can achieve price-setter positions. Industrial policy in these countries has often supported this specialisation, because governments have a choice between spreading their limited resources thinly across many industries or have concentrated them in a few targeted industries. Some governments have seen the internationalisation of their firms as a 'vote of no-confidence' in their home economy, and have actively sought to dissuade them from internationalisation. However, a problem for many firms from peripheral economies is that they need inputs that are not available locally and which they must therefore seek in foreign locations.

Policies in the past have tended to involve intervention to micro-manage the economy by trying to pick sectors to support, and the creation of national champions. However, this option can only be partially successful. It is expensive, and not sustainable on the long term, especially as WTO protocols such as the agreement on subsidies and countervailing measures (SCM) have reduced this avenue for intervention. Furthermore, though, despite the best intentions of governments, they cannot always pick national champions who will be 'winners' at the technological frontier, because by definition, the potential of one technological paradigm over another is very much unpredictable. In addition, peripheral country governments have limited resources, and not just financial capital. One of the primary reasons firms go abroad is to seek diversity of ideas and knowledge. This can hardly be overcome through techno-nationalism (Narula, 2003).

The only real option open to policy makers in this era of globalisation is to accept the inevitable and help firms overcome market failure in markets for knowledge, as well as reduce the inherent risks of internationalisation for their MNEs. This requires a proactive industrial policy, which should include allowing for the cross-border flow of new ideas through human capital: by far the most cost-effective means of such flows. Most important, it provides industry with the means to internalise and absorb technologies and ideas acquired from elsewhere, thereby developing a skilled workforce of international quality. This entails investing more in the quality of tertiary education and public institutions.

Formal policies on inward FDI have to a large extent been liberalised, although considerable differences exist in the extent to which ‘MNE-friendly’ actions are *de facto* implemented. Given the considerable reliance of peripheral economies on FDI as a source of capital and technology, the kinds of FDI that are attracted, and the nature of MNE subsidiaries’ scope and scale is of prime importance. It is well acknowledged that the net benefits from FDI vary, by the kinds of activities undertaken in a given location, and that different subsidiaries may have widely different roles, ranging from performing relatively simple distribution tasks to having responsibility for a range of activities, including research, development, and manufacturing. Although a number of peripheral economies play host to strategic subsidiaries, in general, subsidiaries in these economies tend to be less well-integrated within the MNE’s hierarchy (see Chapter 8 in this volume).

As Kottaridi (2005) among others has shown, there are non-trivial benefits from being in the core rather than being in the periphery, whether in the sense of being

peripheral to the core (such as say, Norway), or being peripheral within the periphery (such as, say, Laos). It is worth stressing that, except in sectors where there are important and dynamic industrial clusters, peripheral countries may experience a decline in MNE subsidiary activity both in terms of scope and competence levels (Benito et al., 2003).

In general, most countries now actively seek inward FDI. However, while the potential for MNE-related spillovers is clear, the nature, level and extent of the benefits vary considerably, and the outcomes from a FDI-assisted industrial policy are not always positive (Lall and Narula, 2004), and require considerable engagement by policy makers in developing human capital, infrastructure and creating the appropriate milieu to promote positive outcomes from FDI inflows. As Lorentzen (Chapter 7 in this volume) implies in his South African study, the quality of the location advantages and the extent to which spillovers occur from inward FDI are crucially interrelated.

It is not always sufficiently acknowledged that inward FDI can also have negative effects. For instance, in many peripheral economies, increased FDI has had negative effects on competition. First, conventional ‘crowding out’ has occurred: as MNEs increase competitive pressure on the domestic sector, domestic firms that have been unable to face this pressure choose – if they at all survive – to de-skill the labour force and move to cheaper niches in the market. Those that survive, struggle to compete with foreign competitors (see Chapter 2 in this volume). Second, MNEs often acquire the most technologically competitive domestic firms. Thus, these firms can be regarded as also exiting, as ownership has been transferred from domestic to foreign.

There is limited real movement of workers from the MNE sector to the domestic sector in the host country, due in part to the higher salaries paid by MNEs subsidiaries in

order to keep their qualified workers and prevent dissemination of their superior knowledge (Fosfuri et al., 2001). In other cases, spillovers occur primarily between MNE affiliates and the domestic firms that they have acquired. MNEs tend to acquire the most technologically competitive amongst the domestic firms, with the highest absorptive capacity prior to acquisition, they would be in the best position to benefit from spillovers (Narula and Marin 2005).

The motive of investment and the structure of MNEs' global configuration influence the extent to which subsidiaries are embedded, and the quality of spillovers. The fact that FDI activities do not always demonstrate significant spillovers to the economy at large indicates that not all FDI provides the same opportunities for spillovers and linkages. For instance, resource-exploiting investments (say, in mining) seek to provide unprocessed raw materials (a relatively low value adding activity) which act as inputs to other affiliates that may be located elsewhere. Resource-seeking FDI may employ a large workforce and be capital intensive, but the potential for spillovers to domestic firms may be small.

While potentially important, FDI is not a *sine qua non* for economic development. MNEs and FDI may well lead to an increase in productivity and exports, but they do not necessarily result in increased competitiveness of the domestic sector or increased industrial capacity, which ultimately determines economic growth in the long run (Lall and Narula, 2004). To be sure, upgrading of technological capabilities of domestic firms can no longer be pursued in quite the same way in a globalising world. International competition is a given, and there can be no return to the infant industry model. Nonetheless, market forces cannot substitute for the role of governments in developing

and promoting a proactive industrial policy (see Chapter 7 in this volume). Firms necessarily take a shorter term, profit maximising view because they are largely risk averse. FDI *per se* does not provide growth opportunities unless a domestic industrial sector exists which has the necessary technological capacity to profit from the externalities from MNE activity (Chapter 2 in this volume). This is well illustrated by the inability of many Asian countries which have relied on a passive FDI-dependent strategy to upgrade their industrial development. FDI, domestic capabilities and a domestic sector need to be concatenated and properly phased if positive results are to be achieved.

#### Supra-national policy issues

An important outcome of globalisation has been the increasingly blurred identity of the nation-state. On the one hand, countries remain sovereign and independent, while on the other hand, they are increasingly swayed by extra-national developments. At the same time, there are clearly defined characteristics and patterns that are history-dependent and idiosyncratic, such as areas of specialisation, technological competences, structure of markets, consumption patterns and culture. Government policies have to tread a thin line between responding to extra-national developments and to domestic priorities. This has led to what is best described as *de facto* economic integration. That is to say, unintended national-level economic integration has occurred, and this has gradually been acknowledged by *de jure* integration.

The growing intensity of international production has followed a natural co-evolutionary path with that of *de facto* economic integration, which in turn has been reinforced by *de jure* integration. Supra-national agreements such as the EU, NAFTA,

WTO have reinforced, accelerated and created standardised regulation for economic activity, acting as a virtuous circle with regards economic integration that had been occurring as a matter of course.

While interdependence, *de facto* integration and economic growth allow countries to catch-up, there are a wider set of issues to do with reciprocity and being politically peripheral in the international arena. This is most obviously noted within supra-national organisations such as the WTO. Agreements such as SCM, TRIMs and TRIPS have severely limited the policy space for countries, as issues such as tariffs, subsidies, incentives, and so forth are decided in a supra-national arena. Malhotra (2006) argues that multilateral and bilateral investment agreements have dubious benefits since they restrict the policy autonomy of developing countries, and may increase transaction costs, while simultaneously increasing opportunity costs.

As Helene Hoggen discusses in Chapter 10, peripheral economies are in an uneven bargaining position vis-à-vis the core economies. Despite the fact that the peripheral economies dominate the membership of the WTO in terms of sheer numbers, the political and economic clout of the EU and the US tends to give them the advantage, as they are able to skew the agenda in their own favour, in many cases using a proliferation of bilateral agreements with individual countries to overcome resistance to their proposed reforms. The BRICS (Brazil, Russia, India, China and South Africa) coalition was intended to create a united front on behalf of the peripheral economies in the WTO negotiations, but its failure to get concessions from the core economies for reciprocal access underlines the relative bargaining positions of the core and the periphery.

## **7. Overview of the book**

This book gives extensive treatments of pertinent aspects of being peripheral in an increasingly global economy. It starts with four studies of the outward internationalisation – by trade as well as investment – by firms from small and peripheral economies.

*Lou Anne Barclay* examines the competitive strategies implemented by successful Trinidadian exporters in the context of a liberalised trading environment. Her starting point is that while developing countries have been liberalising their trade regimes since the end of the 1990s, it is uncertain whether such countries always benefit from trade liberalisation. The manufacturing sector of small, developing countries is especially vulnerable to the consequences of liberalised trade. Thus, the future viability of their local manufacturing firms is questionable. Her analysis suggests that many of the firms studied might not be able to compete in a liberalised trading environment. Indeed, the future viability of Trinidad's manufacturing sector rests on the actions of both policy makers and firms.

*Ele Reiljan* analyses the role of foreign owners in the internationalisation of manufacturing enterprises in Estonia, one of the small emerging economy in the Baltic. Foreign investors have a significant share in several branches of the Estonian manufacturing industry and therefore it is likely that they influence the development of these branches by dictating the rules not only in the Estonian market but also in determining the structure of the export markets, the share of foreign activities, commitment to the foreign markets, choice between subcontracting activities and own



export, and several other strategic issues that influence the overall pattern of foreign expansion. As Reiljan concludes that has had an impact on the sustainability of competitiveness of the Estonian enterprises and the whole economy.

*Grøgaard and Benito* use data from Norway, a rich albeit small country in the Northern periphery of Europe, to investigate the role of industry factors as drivers of companies' internationalisation. They argue that the bulk of literature on companies' internationalisation has focused on firm-level and country-level factors in order to explain firms' cross-border activities. With the exception of a limited number of studies looking at rivalistic behaviour in oligopolistic industries, industry factors have been neglected as potential important determinants of internationalisation. Specifically, Grøgaard and Benito look at whether differences across industries with regard to competition level, research intensity, tangibility of the products, and the existence of clusters influence the impetus and opportunities to internationalize. They use an extensive data set covering the internationalisation patterns of the 100 largest non-financial Norwegian companies over the period 1990 to 2000. The results suggest that industry factors contribute significantly to explaining the companies' internationalisation, and that the effects of industry factors remain strong when firm-level characteristics are taken into account.

In contrast to Gørgaard and Benito who focus on relatively large companies, the study by *Siv Marina Karlsen* describes the process of internationalisation of 12 small and medium-sized enterprises in Norway. Her study explores the factors that influence the pace of internationalisation, in particular why some firms gradually become international while others are "born global". She finds that some high value-adding manufacturing

firms, in spite of their small size and lack of experience in international transactions, are capable of outrunning their larger, more resourceful counterparts in foreign markets. Firms originating from small countries seem to be more exposed to forces pushing them out: partly due to small domestic markets and partly due to fear of future competition from firms originating from larger countries.

In the three subsequent chapters, the perspective is changed from an outward to an inward view of internationalisation.

*Ana Teresa Tavares* examines the cases of two small open EU economies (Ireland and Portugal). These two countries in the EU periphery have had very different performances in their FDI attraction, both in terms of magnitude of FDI inflows and regarding the quality of multinationals' operations. Based on a survey of more than 600 foreign-owned subsidiaries in Portugal and Ireland, the study highlights issues related to the quality and scope of MNE subsidiaries' activities, providing evidence on subsidiary strategic evolution, the motivations underlying investment, and characterising the qualitative dimensions linked to observed evolutionary processes. Tavares connects different subsidiary evolutionary paths to host country development impact. She looks at subsidiaries' value-added scope and the density and quality of local linkages as key determinants of host country impact, and makes an explicit link between subsidiary evolution and public policy towards MNEs. The policy stances of the two host economies are compared, showing that Ireland was far more focused, consistent and effective in terms of promoting and sustaining high quality inward investment, leading to an expected greater ability to withstand future global challenges.

The chapter by *Jochen Lorentzen* presents a South African case study looking into the relationship between human capital in host economies and international capital inflows. Lorentzen's study describes how DaimlerChrysler upgraded human resources in the area around its East London plant in one of South Africa's least developed provinces where the company manufactures the Mercedes C-Class model for export. It shows the extent and depth of the upgrading along and beyond the automotive supply chain, and its repercussions on local education and training institutions. It also analyses how and why this virtuous interaction between FDI and local industrial development in the short and medium term may in the absence of proper regional economic planning turn into a much less desirable outcome in the longer term.

*Björn and Tina Ambos* look at corporate R&D, traditionally one of the most protected and most centralised activities in companies, but which has experienced a rapid internationalisation over the 10-15 years. In contrast to earlier studies, which have focused on R&D activities in core Triad countries, their study also provides novel insights about R&D units in non-Triad nations. The study, which builds on survey data from 49 leading German MNEs that collectively account for two-thirds of the country's privately funded R&D expenditures, reveals some interesting patterns. An important finding is that units in Triad as well as peripheral locations are increasingly equipped with global market mandates, which indicates that the times where R&D was simply carried out for local markets are over. However, despite a steady growth of inward investment, it seems that non-Triad nations are unable to catch-up with the core. The study also shows that the MNEs manage their units in peripheral and in core countries in different ways: units in peripheral locations display much higher interdependencies with

corporate headquarters, are granted much less autonomy, and are much less innovative (measured by patents per annum) than units in core locations.

Whereas previous chapters focus either at local firms' outward internationalisation or at foreign firms' entry and subsequent development of operations in a country, the chapter by *Carl Arthur Solberg* looks at both domestic and foreign companies in his study of relocation. He proposes a model for analysing relocation of business activities, with a focus on three groups of factors: country, industry cluster and company factors. His study of the Norwegian offshore supply sector indicates that country and internal company factors are particularly important in explaining firms' relocation of business activities. However, the strength of cluster factors does not seem to play any significant direct role in this context. His findings also indicate that there is no difference between local and foreign firms in their proclivity to relocate.

In the final chapter, *Helene Hoggen* takes the level of analysis up from that of firms and industries to that of countries and their relationships. Looking at the WTO, she argues that formal rules and dispute settlement cases are not precise indicators of which member states' companies benefit from the WTO system. It is also debatable whether the system is beneficial first and foremost for industry or whether it protects consumers – in peripheral as well as central WTO member states. She argues that it is important to observe ongoing negotiations continuously in order to determine 'who gets what and how'. The WTO is a very special organisation and the trade rules laid down in the WTO agreements are continuously being renegotiated. The WTO system is more complex than it may seem at first glance and traditional rationalist perspectives are not necessarily the best equipped to explain WTO dynamics. In essence, her chapter deals with the challenge

of being a country or a company in the periphery of the WTO system, as compared to being a central actor in the WTO. Her analysis suggests that while coercion is a viable weapon of the strong, principled argument can be a potent asset for the weak to bring about desired change.

## References

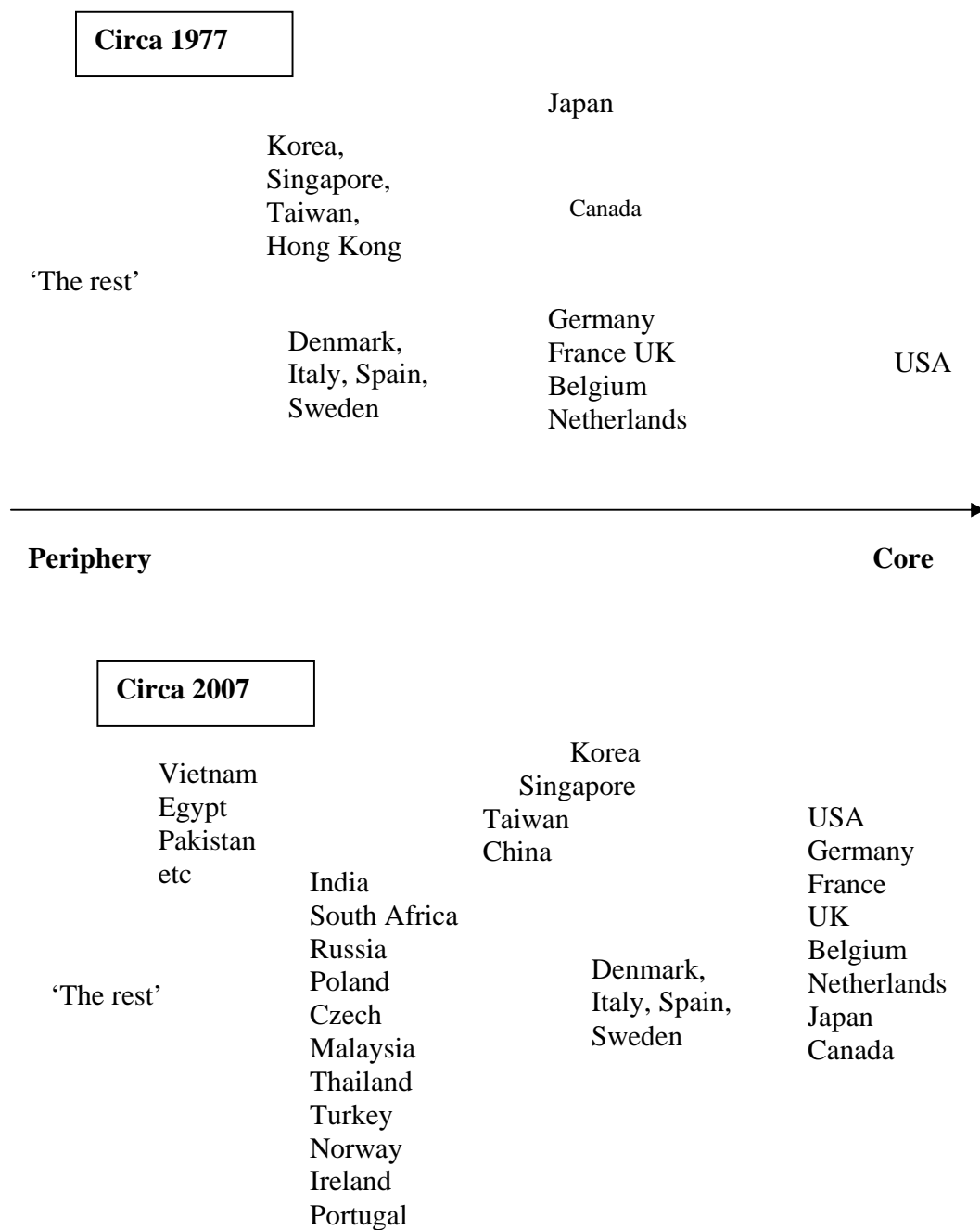
- Barnard, H. (2006) *Investment from less to more developed countries as a mechanism for capability upgrading in developing country firms*, Unpublished PhD Dissertation, Newark: Rutgers University.
- Bellak, C. and Cantwell, J. (1997) 'Small latecomer countries in a globalising environment: constraints and opportunities for catching-up', *Development and International Cooperation*, 13: 139-179.
- Benito, G.R.G. (2005) 'Divestment and international business strategy', *Journal of Economic Geography*, 5: 235-251.
- Benito, G. R.G., Larimo, J., Narula, R. and Pedersen, T. (2002) 'Multinational enterprises from small economies: internationalisation patterns of large companies from Denmark, Finland, and Norway', *International Studies of Management and Organization*, 32(1): 57-78.
- Benito, G.R.G., Grøgaard, B. and R. Narula (2003), 'Environmental influences on MNE subsidiary roles: Economic integration and the Nordic countries', *Journal of International Business Studies*, 34 (5): 443-456.
- Birkinshaw, J. and N. Hood (1998), editors, *Multinational Corporate Evolution and Subsidiary Development*. Basingstoke: Macmillan.
- Cantwell, J. (1995) 'The globalization of technology: What remains of the product cycle model?', *Cambridge Journal of Economics*, 19: 155-74.
- Dicken, P. (2003), *Global Shift: Reshaping the Global Economic Map in the 21st Century*. Fourth Edition. London/Thousand Oaks/New Delhi: Sage Publications.
- Dunning, J.H. and Narula, R. and Van Hoesel, R. (1998). 'Third world multinationals revisited: New developments and theoretical implications'. In Dunning, J.H. (ed) *Globalisation, trade and Foreign Direct Investment*, Oxford: Elsevier.
- Forslid, R. and Wooton, I. (2003) 'Comparative advantage and the location of Production', *Review of International Economics*, 11 (4): 588-603.
- Fosfuri, A., Motta, M. and Ronde, T. (2001) 'Foreign direct investment and spillovers through workers' mobility', *Journal of International Economics*, 53 (1): 205-222.
- Fujita, M. and Thisse, J. (2003) 'Does geographical agglomeration foster economic

- growth? And who gains and loses from it?', *Japanese Economic Review*, 54 (2):121-145.
- Held, D., McGrew, A., Goldblatt, D. and Perraton, J. (1999) *Global Transformations. Politics, Economics and Culture*. Cambridge: Polity Press.
- Hoesel, R. van (1999) *New Multinational Enterprises from Korea and Taiwan*, London: Routledge.
- Hoesel, R. van and Narula, R. (1999), editors, *Multinationals from the Netherlands*. London: Routledge.
- Holm, U. and T. Pedersen (2000), editors, *The Emergence and Impact of MNC Centres of Excellence*. Basingstoke: Macmillan.
- Kottaridi, C. (2005) 'The 'core-periphery' pattern of FDI-led growth and production Structure', *Applied Economics*, 37: 99-113.
- Krugman, P. (1991) *Geography and Trade*. Leuven University Press/MIT Press
- Krugman, P. and Venables, A. (1995). 'Globalization and the inequality of nations', *Quarterly Journal of Economics*, 110(4): 857-80.
- Kumar, K and Mcleod, G, (1981), editors, *Multinationals from Developing Countries*. Lexington Books.
- Lall, S. (1983) *Third World Multinationals*. Chichester: John Wiley.
- Lall, S. and Narula, R. (2004) 'FDI and its role in economic development: Do we need a new agenda?', *European Journal of Development Research*, 16: 447-464.
- Lecraw, D. (1977) 'Direct investment by firms from less developed countries', *Oxford Economic Papers*, 29 (3): 442-457.
- Malhotra, K. (2006) 'Will a trade and investment link in the global trade regime be good for human development?'. In Narula R and. Lall, S. (eds.) *Understanding FDI-Assisted Economic Development*. Routledge, London.
- Marshall, A. (1919) *Industry and Trade; A Study of Industrial Technique and Business Organization, and of their Influences on the Conditions of Various Classes and Nations*. London: Macmillan.
- Mathews, J. (2006) 'Dragon multinationals: New players in 21st century globalization', *Asia Pacific Journal of Management*, 23: 139-141.
- Narula, R. (2003) *Globalisation and Technology*. Cambridge: Polity Press.
- Narula, R. and Dunning, J. (2000) 'Industrial development, globalisation and

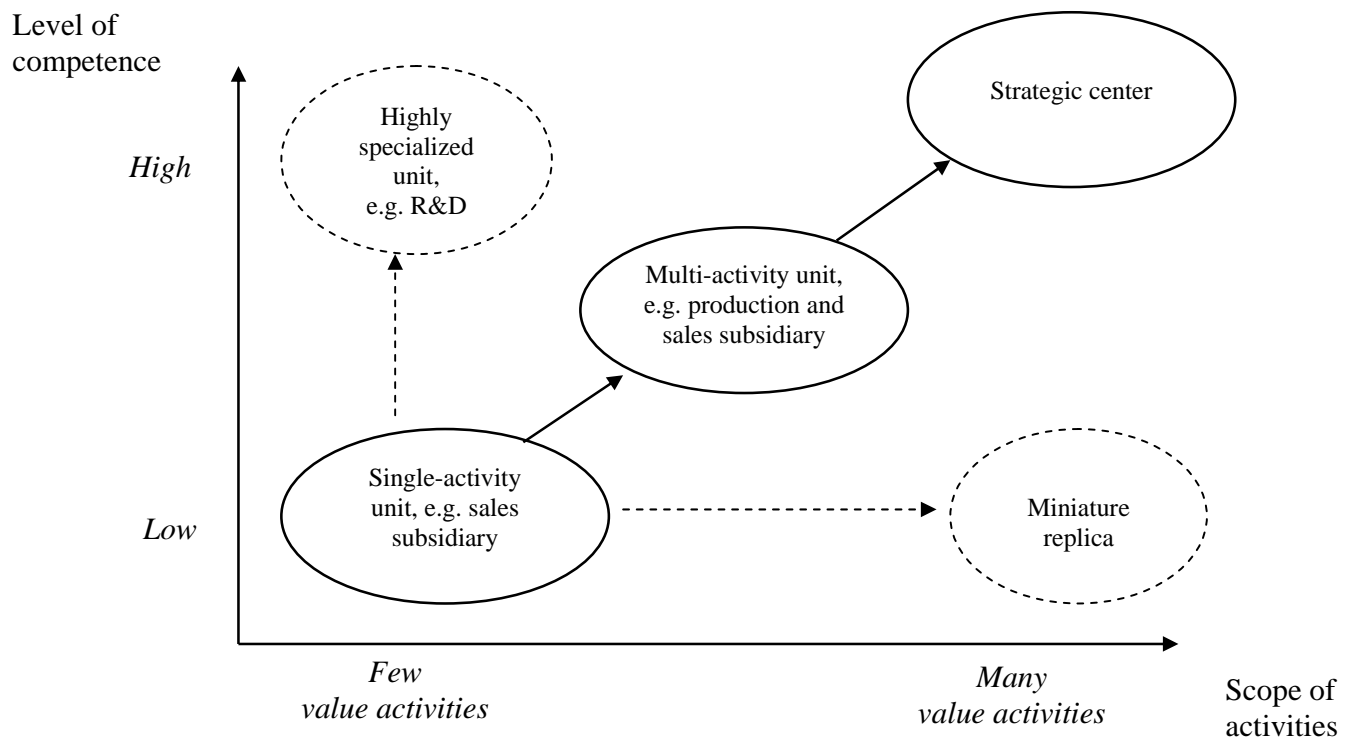
- multinational enterprises: New realities for developing countries', *Oxford Development Studies*, 28: 141-167.
- Narula, R. and Marin, A. (2005). Exploring the relationship between direct and indirect spillovers from FDI in Argentina, *MERIT Research Memorandum 2005-16*
- Navaretti, G.B. and Venables, A.J. (2004). *Multinational Firms in the World Economy*. Princeton: Princeton University Press.
- Prebisch, R. (1962) *The Economic Development of Latin America and its Principal Problems*. New York: United Nations.
- UNCTAD (2005) World Investment Report 2005, Geneva: United Nations.
- UNCTAD (2006) World Investment Report 2006, Geneva: United Nations.
- Van Den Bulcke, D. and Verbeke, A. (2001), editors, *Globalization and the Small Open Economy*. Cheltenham: Edward Elgar.
- Vernon, R. (1966) 'International investment and international trade in the product cycle,, *Quarterly Journal of Economics*, 80: 190-207
- Wallerstein, I. (1974), *The Modern World System: Capitalist Agriculture and the Origins of the European World Economy in the Sixteenth Century*. New York: Academic Press.
- Wallerstein, I. (1979) *The Capitalist World Economy: Essays*. Cambridge University Press: Cambridge.



**Figure 1.1:** Core and periphery in the world economy.



**Figure 1.2:** Different types of subsidiaries (Source: Benito et al., 2003).



## **The UNU-MERIT WORKING Paper Series**

- 2007-01      *Developing science, technology and innovation indicators: what we can learn from the past* by Christopher Freeman & Luc Soete
- 2007-02      *The impact of innovation activities on productivity and firm growth: evidence from Brazil* by Micheline Goedhuys
- 2007-03      *Estimations of US debt dynamics: Growth cum debt and the savings glut in Kouri's model* by Thomas Ziesemer
- 2007-04      *States and Firms on the Periphery: The Challenges of a Globalising World* by Gabriel R.G. Benito & Rajneesh Narula

---

## **ENDNOTES**

<sup>1</sup> Cantwell (1995) generalises Vernon's ideas, extending them to include multiple core locations, and the role of technological change in this process.

<sup>2</sup> The issue here is to seek access to markets, which firms may do either through exports or FDI.